UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/539,581	06/17/2005	Seong-Yeol Hyeon	0630-2353PUS1	JS1 4329		
2292 BIRCH STEW	7590 10/03/2007 ART KOLASCH & BIRCH	ſ	EXAMINER			
PO BOX 747		LEY, FRANCISCO M				
FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER		
			3746			
		•				
			NOTIFICATION DATE	DELIVERY MODE		
			10/03/2007	ELECTRONIC		

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

·	LH						
	Application No.		Applicant(s)				
•	10/539,581		HYEON, SEONG-YEOL				
Office Action Summary	Examiner		Art Unit				
	Francisco M. I	_ey	3746				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address							
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REI WHICHEVER IS LONGER, FROM THE MAILING  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory peri  - Failure to reply within the set or extended period for reply will, by state that three months after the material patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS (a) 1.136(a). In no event, he iod will apply and will expand the application of the course the c	COMMUNICATION powever, may a reply be time ire SIX (6) MONTHS from to become ABANDONE!	I. lely filed the mailing date of this c (35 U.S.C. § 133).				
Status							
1) Responsive to communication(s) filed on $\underline{11}$							
	his action is non-						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4) Claim(s) 1-7 is/are pending in the application 4a) Of the above claim(s) is/are without 5) Claim(s) is/are allowed. 6) Claim(s) 1-7 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and	drawn from consid						
Application Papers							
9)☑ The specification is objected to by the Exam 10)☑ The drawing(s) filed on 17 June 2005 is/are: Applicant may not request that any objection to the Replacement drawing sheet(s) including the constant of	: a)⊠ accepted on the drawing(s) be he rection is required if	eld in abeyance. See the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 C	FR 1.121(d).			
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ⊠ All b) □ Some * c) □ None of:  1. □ Certified copies of the priority documents have been received.  2. □ Certified copies of the priority documents have been received in Application No  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 6/17/2005 and 8/31/2007.	5)	Interview Summary Paper No(s)/Mail Da Notice of Informal P Other:	ate				

Application/Control Number: 10/539,581

Art Unit: 3746

#### **DETAILED ACTION**

## Specification

1. The disclosure is objected to because of the following informalities: Page 8, Line 12, "volt" should recite "bolt".

Appropriate correction is required.

### Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Song (U.S. Patent 6,435,842).

Regarding Claim 1, Song discloses a reciprocating compressor comprising a reciprocating motor made of inner stator 4A and outer stator 4B disposed in a casing, and generating a driving force (Column 1, Lines 63-67). A compressor unit C is included for sucking, compressing, and discharging gas by the driving force of the reciprocating motor, and a resonant spring unit includes springs 7A and 7B for providing a reciprocating movement of the reciprocating motor with a resonant movement and two spring supporting frames, 1 and 2, by which the resonant spring unit is supported wherein one of the spring supporting frames is inserted into another spring supporting frame for being coupled with each other (Column 4, Lines 6-9).

Application/Control Number: 10/539,581

Art Unit: 3746

Regarding Claim 3, Song discloses that the spring supporting frames comprises a first frame 1 for supporting a first spring 20a of the resonant spring unit, which is shrunk in compression operation of a piston 6 of the compression unit C, together with a spring seat 13 and connected with the piston 6. A second frame 2 is for supporting a second spring 20B of the resonant spring unit, which is shrunk in suction operation of the piston 6, together with the spring seat panel 13.

### Claim Rejections - 35 USC § 103

4. Claims 2, 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song as applied to claims 1 and 3 above, and further in view of Parker (U.S. Patent 3,248,044).

Song discloses all of the claimed limitations as applied to claims 1 and 3 above, except that Song does not disclose that from the circumference of a first and second spring supporting portion, cylindrical portions are extended and joined, one inside of the other, by welding. However, Parker discloses cylindrical portions 12 and 13 that are part of the support portions for springs 24 inside a refrigerant compressor. Parker further discloses that the extended cylindrical portions 12 and 13 are joined one inside of the other and fastened at an outer circumferential surface by welding (Column 2, Lines 41-42).

It would have been obvious at the time the invention was made to modify Song to use cylindrical extensions on the spring supports that are joined by welding as is disclosed by Parker. Cylindrical extensions joined by welding have long been used to

Application/Control Number: 10/539,581

Art Unit: 3746 -

Page 4

form casings for reciprocating compressors, and Parker discloses that the welded casing can also be used as part of a spring support structure.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco M. Ley whose telephone number is (571) 270-1299. The examiner can normally be reached on Monday-Friday, 8:30am-6:00pm, Alt Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached at (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000.

FML September 20, 2007

ANTHONY D. STASHICK SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3700